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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/813,144	03/21/2001	Luiz Buchsbaum	A7979	1425
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SUGHRUE, MION, ZINN, MACPEAK & SEAS, PLLC 2100 Pennsylvania Avenue, N.W. Washington, DC 20037-3213				
			EXAMINER PIZARRO, RICARDO M	
			ART UNIT 2661	PAPER NUMBER

DATE MAILED: 07/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/813,144

Applicant(s)

BUCHSBAUM ET AL.

Examiner

Ricardo Pizarro

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 24 January 2005.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-23 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☒ Claim(s) 19 is/are allowed.  
6) ☒ Claim(s) 1-4, 6-17 and 20-23 is/are rejected.  
7) ☒ Claim(s) 5 and 8 is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

2. Claims 1, 2, 4, 6-8, 10-17, 20, 22 are rejected under 35 U.S.C. 102(a) as being anticipated by US patent No. 6,650,869 (Kelly)

Regarding claim 1, Kelly discloses a System and method for managing return channel bandwidth comprising A method of performing IP multicast communication, comprising the steps of: (a) at least one client ( plurality of user terminal, col 4 lines 59-63) requesting the IP multicast communication from a source via at least one bidirectional communication channel ( Internet network 105 in Fig. 2) ; and (b) transmitting the IP multicast communication generated at the source ( col 7 lines 20-25) to at least one destination ( PC 101 in Fig. 2) via a unidirectional communication channel that operates independently of the at least one bidirectional communication channel ( please notice that satellite dish 107 in Fig. 2 operates as an unidirectional channel as clearly depicted in the drawing, receiving information from NOC 113 and transmitting unidirectionally only to antenna 111 , although the network itself might be two-way) wherein the at least one client is positioned in the at least one destination

( said client 101 is positioned in at least one destination in Fig. 2).

Regarding claim 2, further comprising the source receiving a confirmation from the at least one destination via the at least one bidirectional communication channel in response to a confirmation request transmitted from the source to the at least one destination ( after successfully receiving a package, user 101 may send a confirmation to a package delivery server within NOC 113 in Fig. 2, col 6 lines 63-67).

Regarding claim 4, further comprising encoding a live media stream for transmission to the at least one client in the step (b) ( modulator 405 encodes data stream, col 10 lines 18-19 and 25-28).

Regarding claim 6, wherein step (a) comprises using a number of the at least one bidirectional communication channels that is less than or equal to a number of the at least one destination (the bi-directional channel being the Internet will be an equal number in the case of one destination or a lesser number in the case of two or more destinations) .

Regarding claim 7, further comprising using the Internet as the at least one bidirectional communication channel ( Internet network is the bi-directional channel in Fig. 2) .

Regarding claim 8, the step (b) comprising transmitting the IP multicast communication from a transmitting satellite dish at the source ( satellite dish located on NOC 113 in Fig. 2) to a to a receiving satellite dish ( receiving satellite dish 111 in Fig. 2) at the at least one destination through a unidirectional satellite ( unidirectional satellite 107 in Fig. 2).

Regarding claim 21, further comprising configuring a router in a transparent manner for application to multi-hop networks positioned in at least one of said source and the at least one destination ( NOC 113 performs as an interface between networks, see NOC routing equipment in Fig. 4, col 5 lines 9-10).

Regarding claim 11, a system for IP multicast communication, comprising: a destination that transmits a request via a return channel ( destination i.e user side 101 in Fig. 2 that send a request through a return channel interface, col 6 lines 14-15) and receives an IP multicast communication from a unidirectional communication channel ( please notice that satellite dish 107 in Fig. 2 operates as an unidirectional channel, receiving information from NOC 113 and transmitting unidirectionally only to antenna 111 , although the whole network itself might be two-way); and a source that receives the request through a return channel ( source being the NOC 133 side in Fig. 2 that receives request though return channel interface), and generates and transmits the IP multicast communication to the unidirectional communication channel in accordance with the request, wherein the unidirectional communication channel and the return channel operate independently ( said return channel and satellite 107 operate independently), as in claim 10; wherein the unidirectional communication channel comprises a satellite ( satellite 107 in Fig., 2) .

Regarding claim 12, the destination comprising: at least one downstream network having a client that generates the request ( plurality of user 101 in Fig. 1, col 4 lines 60-63) and a reception device that receives and transmits the IP multicast communication ( antenna 111 in Fig. 2 that that receives data from satellite and

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transmits to destination) from the unidirectional communication channel that communicates via the return channel.

Regarding claim 13, wherein the return channel comprises the Internet ( Internet access in Fig. 2).

Regarding claim 14, wherein the source is configured to record usage statistics for requesting a client at the destination, and generates a bill in response to the usage statistics ( col 14 lines 30-34).

Regarding claim 15, the source comprising a media server ( CAC server 425 in Fig. 4) that prepares a media stream and an upstream network ( LAN 421 and 425, col 11 lines 29-34) that is coupled to the media server and receives the media stream and generates the IP multicast communication ( CAC server 425 part of NOC 113 in Fig. 4 , said NOC including a plurality of gateways that support media and IP multicast in Fig. 4, col 5 lines 9-10, col 7 lines 21-22, col 11 lines 35-40, col 12 lines 4-7).

Regarding claim 16, the source further comprising a media encoder that receives a live media stream and transmits the live media stream to the media server for real-time transmission to a client at the destination, ( modulator 405 in NOC 113 in Fig. 4 is located at the source encodes data stream, col 10 lines 18-19 and 25-28) .

Regarding claim 17, further comprising a router ( NOC 113 in Fig. 2 acts as an interface between network) coupled between the upstream network and a transmission device that transmits the IP multicast communication to the unidirectional communication channel ( antenna in NOC 113 transmits to unidirectional satellite 107 in Fig. 2).

Regarding claim 22, further comprising a router configured transparently located in at least one of said source and said destination ( NOC 113 performs as an interface between networks, see NOC routing equipment in Fig. 4, col 5 lines 9-10).

A method of transmitting data between a source ( source being NOC 113 side in Fig. 1) and at least one destination( user 101 side in Fig. 1) , comprising: transmitting a request signal, from the at least one destination to the source over the Internet ( Internet 105 in Fig. 1); processing a live media stream in the source in accordance with the request signal ( NOC 113 in Fig. 1 has connectivity to the Internet and intranets and supports real-time audio and video applications, col 5 lines 8-14) generating an IP multicast signal that includes the media stream, and transmitting the IP multicast signal to the at least one destination via an unidirectional communication channel ( NOC 113 IN Fig, 1 and 4 includes a plurality of gateways that support media and IP multicast in Fig. 4, col 5 lines 9-10, col 7 lines 21-22, col 11 lines 35-40, col 12 lines 4-7); and through the( col 14 lines 30-34), return channel, transmitting one of usage information from the source to the destination and confirming reception of the IP multicast signal by a client in the at least one destination ( after successfully receiving a package, user 101 may send a confirmation to a package delivery server within NOC 113 in Fig. 2, col 6 lines 63-67), as in claim 20.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 3, 9 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over US patent No. 6,650,869 (Kelly)

Regarding claim 9, ( Kelly discloses a System and method for managing return channel bandwidth comprising A method of configuring IP multicast communication, comprising the steps of: requesting the IP multicast communication from a client in one of downstream network ( downstream network on user side 101 in Fig. 2) to an upstream network ( upstream network on NOPC 113 side in Fig. 2) via a corresponding bidirectional return channel ( Internet 105 in Fig. 1 being the bidirectional channel); (b) encoding a live media stream in the IP multicast communication ( modulator 405 in NOC 113 in Fig. 4 is located at the source encodes data stream, col 10 lines 18-19 and 25-28) and transmitting the IP multicast communication generated at the upstream network (transmission through antenna in NOC 113 ) to the at least one downstream network via a unidirectional satellite ( unidirectional satellite 107 in Fig.2) that operates independently of the corresponding return channel (said satellite operates independently than the bi-directional channel), the transmission of the live media



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occurring in real-time without being stored at the destination prior to receipt by the client ( NOC 113 in Fig. 1 has connectivity to the Internet and intranets and supports real-time audio and video applications, col 5 lines 8-14) ; (c) the upstream network receiving a confirmation of receipt of the IP multicast communication by the from the client via the return channel in response to a confirmation request transmitted from the upstream network to the downstream network ( after successfully receiving a package, user 101 may send a confirmation to a package delivery server within NOC 113 in Fig. 2, col 6 lines 63-67).

Regarding claims 3 and 9 , measuring and reporting usage information on the channels ( i.e.(a) recording a receiving time indicative of the at least one client starting to receive the IP multicast communication;(b) recording a termination time indicative of the at least one client terminating reception of the IP multicast communication, col 14 lines 30-34) ,calculating client user statistics and generating a bill for the IP multicast communication in accordance with user statistics, wherein at least one of steps (a) and (b) is performed at the source ( system 100 measures usage and provides billing information, that may be available on a real-time basis in NOC 103 -source- in Fig.2).

Kelly did not specifically disclose further comprising: (a) recording a receiving time indicative of the at least one client starting to receive the IP multicast communication; (b) recording a termination time indicative of the at least one client terminating reception of the IP multicast communication, as in claim 3, neither turning off a stream is there is no client listening to said stream, as in claim 23

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However Kelly in col 14 lines 30-34 disclosed measuring and reporting usage on the channels and in col 5 lines 34-36 also disclosed ensuring maximum bandwidth efficiency by minimizing waste due to unused allocated bandwidth.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention that measuring said usage information would have been a result of knowing the start and end on a communication between two parties and could have been carried out by recording a receiving time and recording of a termination time indicative of the at least one client terminating reception of the IP multicast communication, and disconnecting a stream would have been one of the ways to minimize waste of unused allocated bandwidth .

The motivation to do so is obtaining a access managing system that permits one-way satellite system user to upgrade systems in a cost-effective manner and minimize cost to the user to thereby stimulate market acceptance.

#### ***Allowable Subject Matter***

4. Claim 19 is allowed.

Claims 5 and 18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claim.

#### ***Conclusion***

5. Applicant's arguments filed on 1/24/05 have been fully considered but they are not persuasive.

Regarding claim 1. Applicant argues that the Kelly reference fails to disclose a unidirectional channel that operates independently of the bidirectional channel. Examiner disagrees. As indicated in the previous Office Action and for purposes of interpretation Examiner indicated that satellite dish 107 operates as such unidirectional channel as clearly depicted in the drawing, transmitting unidirectionally to antennas 111 (-although the network itself might be a two-way network as indicated in the previous action). Said channel operating independently since is not part of the Internet network wherein Examiner indicated the bidirectional channel was located, therefore said channel operating separately.

Regarding Fig. 1 and 2 applicant argues that there is no combination of unidirectional communication channel and bidirectional channel that operate independently (Page 11 of the response). Examiner disagrees with applicant and would like to apply the same response than to the previous above indicated argument.

Additionally, in response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., IP multicasting requests can be transferred from destination to a source over the Internet) are not recited in the rejected claim(s).

Regarding claim 4, in response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., video encoding, source coding) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from

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the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

In response to arguments that the modulator 405 fails to perform encoding of a live media stream, Examiner disagrees with argument. Modulator 405 performs a modulating function and additionally to this also performs the encoding of video broadcasting from the satellite .See col 10 lines 18-10 and 25-27.

**6. THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

**Any response to this final action should be mailed to:**

**Box AF**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

**or faxed to:**

(571) 272-3126

.(for formal communications; please mark "EXPEDITED PROCEDURE", for informal or draft communications, please label "PROPOSED" or "DRAFT" )

Hand-delivered responses should be brought to 22- 20<sup>th</sup> Street S, Crystal Plaza Two, Lobby, Room 1B03, Arlington , VA 22202 ( Customer window).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Ricardo Pizarro** whose telephone number is **(571) 272-3077**. The examiner can normally be reached on Monday-Thursday from 9:00 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Chau Nguyen** can be reached on (571) 272-3126.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

2005-07-08

Ricardo Pizarro



**CHAU NGUYEN**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 2661**